AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A system for multi-lingual speech recognition, comprising:

a speech modeling engine, receiving and transferring a mixed multi-lingual speech signal into a plurality of speech features;

a multi-lingual baseform mapping engine, comparing a plurality of multi-lingual query commands to obtain a plurality of multi-lingual baseforms;

a cross-lingual diphone model generation engine, coupled to the multi-lingual baseform mapping engine, selecting and combining the multi-lingual baseforms, further comprising:

fixing one side contexts of the multi-lingual baseforms and mapping another side contexts of the multi-lingual baseforms to obtain a mapping result;

obtaining the multi-lingual context-speech mapping data according to the mapping result; and

storing the multi-lingual context-speech mapping data in a multi-lingual model database;

a speech search engine, coupled to the speech modeling engine, receiving the speech features, and locating and comparing a plurality of candidate data sets corresponding to the speech features, referring the connecting sequences of the speech features and a speech rule database, according to the multi-lingual model database to find match probability of a plurality of candidate speech models of the candidate data sets; and

a decision reaction engine, coupled to the speech search engine, selecting a plurality of resulting speech models corresponding to the speech features according to the match probability from the candidate speech models to generates a speech command.

PCL/QL

2. (Original) The system as claimed in claim 1, wherein the speech models are characterized by diphone models.

3-5. (Cancelled).

6. (Currently Amended) The system as claimed in claim $\underline{1}3$, wherein the multi-lingual model database comprises a plurality of multi-lingual anti-models.

7. (Original) The system as claimed in claim 6, further comprising:

at least one uni-lingual anti-model generation engine, receiving a plurality of multi-lingual query commands to generate a plurality of uni-lingual anti-models corresponding to specific languages; and

an anti-model combination engine, coupled to the uni-lingual anti-model generation engine, calculating the uni-lingual anti-models to generate the multi-lingual anti-models.

8. (Cancelled)

9. (Currently Amended) A method for multi-lingual speech recognition, comprising the steps of:

transferring a mixed multi-lingual speech signal into a plurality of speech features;

comparing a plurality of multi-lingual query commands to obtain a plurality of multi-lingual baseforms;

selecting and combining the multi-lingual baseforms, comprising:

fixing one side contexts of the multi-lingual baseforms and mapping another side contexts of the multi-lingual baseforms to obtain a mapping result; and

obtaining the multi-lingual context-speech mapping data according to the mapping result;

storing the multi-lingual context-speech mapping data in a multi-lingual model database;

locating and comparing a plurality of candidate data sets corresponding to the speech features ~~, referring the connecting sequences of the speech features and a speech rule database,~~ according to the multi-lingual model database to find match probability of a plurality of candidate speech models of the candidate data sets; and

selecting a plurality of resulting speech models corresponding to the speech features from the candidate speech models according to the match probability to generate a speech command.

10. (Original) The method as claimed in claim 9, wherein the speech models are characterized by diphone models.

11-13. (Cancelled).

14. (Currently Amended) The method as claimed in claim 9~~13~~, wherein selection and combination further comprises the steps of:

PCL/QL

fixing left contexts of the multi-lingual baseforms and mapping right contexts of the

multi-lingual baseforms to obtain a mapping result;

fixing right context and mapping the left contexts of the multi-lingual baseforms to obtain

the mapping result if the right contexts of the multi-lingual baseforms mapping fails; and

obtaining the multi-lingual context-speech mapping data according to the mapping result.

15. (Currently Amended) The method as claimed in claim 9~~11~~, wherein the multi-lingual

model database comprises a plurality of multi-lingual anti-models.

16. (Original) The method as claimed in claim 15, further comprising the steps of:

receiving a plurality of multi-lingual query commands corresponding to specific

languages and generate a plurality of uni-lingual anti-models; and

combining the uni-lingual anti-models to generate the multi-lingual anti-model.

17. (Cancelled)

18. (New) The system as claimed in claim 1, wherein the cross-lingual diphone model

generation engine further fixes left contexts of the multi-lingual baseforms and maps right

contexts of the multi-lingual baseforms to obtain a mapping result, fixes right context and maps

the left contexts of the multi-lingual baseforms to obtain the mapping result if the right contexts

of the multi-lingual baseforms mapping fails, and obtains the multi-lingual context-speech

mapping data according to the mapping result.

PCL/QL

19. (New) The system as claimed in claim 1, wherein the speech search engine locates and compares the candidate data sets, further referring the connecting sequences of the speech features and a speech rule database.

20. (New) The method as claimed in claim 9, wherein locating and comparison of the candidate data sets further refers the connecting sequences of the speech features and a speech rule database.

PCL/QL